REMARKS

Claims 1-23 are pending in the application. Of the claims, Claims 1, 4, 7, 13, and 18 are independent claims. The disclosure has been objected to because of informalities. Claims 7-23 are allowed. Claims 3 and 6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claims 1, 2, 4 and 5 are rejected under 35 U.S.C. § 102(b) as being deemed anticipated by Lehman et al. (U.S. Patent Number 5,680,161.) That rejection is respectfully traversed and reconsideration is requested.

Regarding Objection to the Disclosure

Applicants have amended the specification to clarify the data structure has sixteen entries, twelve of the sixteen entries in the non-binary width data structure are stored in the first binary memory block and the other four entries are stored in the first other portion or the second other portion of the second binary memory block. (*See* Applicants' specification Page 8, line 24 – Page 9, line 2; Fig. 2A, 202a-h, 204, 206 as originally filed.) No new matter is introduced. Removal of the objection to the disclosure is respectfully requested.

Regarding Rejection of claims 1, 2, 4, and 5 under 35 U.S.C. § 102(b)

Claims 1, 2, 4 and 5 are rejected under 35 U.S.C. § 102(b) as being deemed anticipated by Lehman et al. (U.S. Patent Number 5,680,161.) Before discussing the cited reference however, a brief review of the Applicant's disclosure may be helpful.

The Applicant's disclosed invention is directed to a method and apparatus for storing one non-binary width data structure per logical row in a memory. The non-binary width data structure is segmented into plural segments. The segments are physically mapped into a memory structure smaller than would be required for the non-binary width data structure without segmenting. A logical address is mapped into the physically arranged segments. The logical address identifies a logical row in the memory for storing the non-binary width data structure.

The cited prior art Lehman is directed to data compression. Received video data is compressed and stored in a video memory such that portions of data representing a pixel are stored in <u>different addressable locations</u> in the memory allowing the pixels to be densely packed in the video memory. The data is densely packed in the memory by writing a first word into one memory location and a second portion of the second word (with at least a portion of a third word) in a second memory location. For example, referring to Fig. 2, portion R1 of pixel 1 is stored in memory location M0 and portions G1 and B1 are stored in memory location M1. To refresh the display, pixels are read sequentially from the video memory.

Lehman's discussion of a method for densely packing pixels in a video memory does not teach or suggest the Applicant's claimed method for storing a non-binary width data structure per logical row in a memory. In contrast, in the applicant's claimed invention the non-binary width structure is logically stored in a single logical memory row; that is, in one addressable location in the memory that is identified by a single logical address. The single logical address is mapped to physically arranged plural segments that store segments of the non-binary width data structure. (*See* Page 7, lines 22-25 and Page 8, lines 14-25.)

Thus, the non-binary data structure stored in the single logical memory row can be accessed in a single memory access, a logical address identifying <u>the single logical row in the memory for storing the non-binary width data structure</u>. Instead of densely packing the non-binary data structure into different addressable locations in the memory, the size of the memory used to store the non-binary data structure in the single logical addressable location is reduced by mapping the logical address into physically arranged plural segments.

Claims 2 and 4 are dependent on Claim 1 and thus include this limitation over the prior art. Independent Claim 5 recites a like distinction in terms of an apparatus and thus similarly patentably distinguishes over the prior art.

Accordingly, the present invention as now claimed is not believed to be anticipated by or made obvious from the cited art or any of the prior art. Removal of the rejections under 35 U.S.C. 102(b) and acceptance of Claims 1, 2, 4 and 5 is respectfully requested.
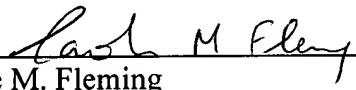
Regarding Allowable Subject Matter

Applicants thank the Examiner for the indication that Claims 3 and 6 would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims and for the allowance of Claims 7-23.

CONCLUSION

In view of the above amendments and remarks, it is believed that all claims are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,

HAMILTON, BROOK, SMITH & REYNOLDS, P.C.

By _____
Caroline M. Fleming
Registration No. 45,566
Telephone: (978) 341-0036
Facsimile: (978) 341-0136

Concord, MA 01742-9133
Dated: 6/14/04